

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028235**Date Inspected:** 21-Aug-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job site**CWI Name:** Salvador Merino**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

Quality Assurance Inspector (QAI) Rodney Patterson was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

Magnetic Particle Testing (OBG 13E)

This QA Inspector performed a minimum of 15% verification Magnetic Particle Testing (MT) of the deck panel drop-in splice weld connection designated as 13E-E2.8. This QA Inspector generated a TL-6028 MT report on this date. The results of the inspection are as follows;

Deck Drop-in Longitudinal Splice (Weld 13E-E2.8 Face A)

The welds were initially rejected visually due to excessive reinforcement. Minor repair by grinding was performed prior to acceptance. No indications were observed at the time of inspection.

Deck Drop-in Longitudinal Splice (Weld 13E-E2.8 Face B)

The weld was rejected visually due to excessive reinforcement and underfill between panel point 123 and 123.5. No indications were observed outside of the noted area. The weld will require further re-work on face B between panel point 123 and 123.5 at a later date.

The QAI observed ABF/JV qualified welder Wai Kitlai #2953 performing Carbon Arc Gouging (CAG) for the repair of the deck panel drop-in splices designated as 13E-E2.1 and 13E-PP120.6. The ABF/JV QC inspector Salvador Merino was observed performing magnetic particle testing (MT) in way of the repair excavations at the

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following locations,

Weld 13E-E2.1

Y=2560 Depth 10, Width 16mm, Length 80mm

Weld 13E-PP120.6

Y=550

The ABF welder Wai Kitlai was observed later in the shift performing Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specifications ABF-WPS-D1.5-1004-Repair at the locations previously noted. The weld and surrounding area was brought to a temperature of 325°F by the use of inductions heaters and maintained throughout the welding process. Due to the first time repair at these locations approval of the engineer is not required.

Ultrasonic Testing (OBG 13E)

This QA performed verification Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) deck panel drop-in weld connections for lift 13E. The weld were previously tested and accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The QAI's findings are as follows;

Lift 13E Longitudinal deck splice (Weld No. 13E-E2.8)

The QAI performed a minimum of 30% random verification of this weld. A total of three (3) rejectable indications were observed by the QAI at the time of inspection. All indications found were confirmed by ABF QC inspector Jesse Cayabyab during this shift.

The QAI was notified by ABF/JV QC inspector Salvador Merino that the lifting lug removal areas on the E3 longitudinal diaphragm south side at panel point 122.65 were completed and ready for QA verification. The results of the inspections are as follows.

Panel Point 122.65 E3 longitudinal diaphragm

The QA visual inspection at the lifting lug removal area was performed at this location and measurements taken on the required 3/1 slope of the removal area appeared to comply with ABF-RFI-001151R00 and Magnetic particle testing of the removal areas was said to have been performed by ABF QC on an earlier shift. During the QA final random magnetic particle testing (MT) of the lifting lug removal area, a total of three (3) transverse linear indications ranging from 5mm~10mm on the remaining lug attachments were observed. ABF/JV QC inspector Salvador Merino was notified of the remaining indications observed by the QAI at this location and noted that further repair and inspection will be required at this location at a later date.

The QAI spent a portion of this shift reviewing and documenting the status and completion of various production welding tracking logs for lift 13E-14E drop-in deck work currently in-process. The QA recorded the information on the OBG tracking log.

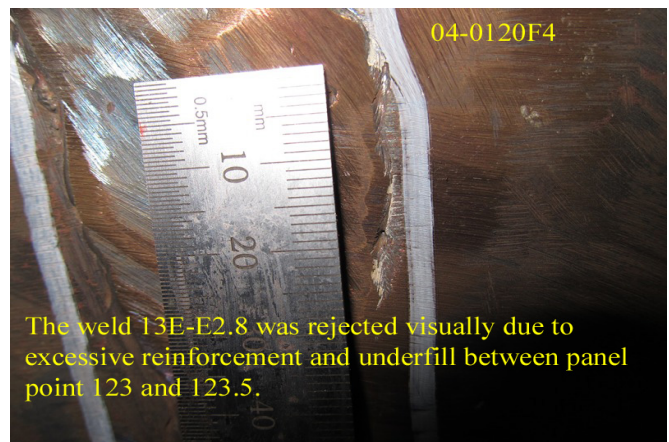
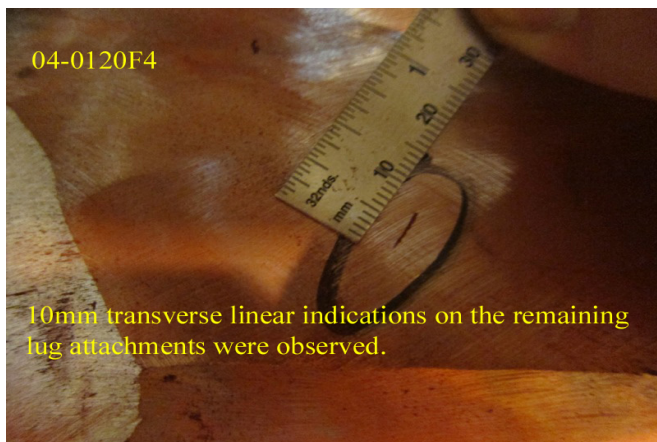
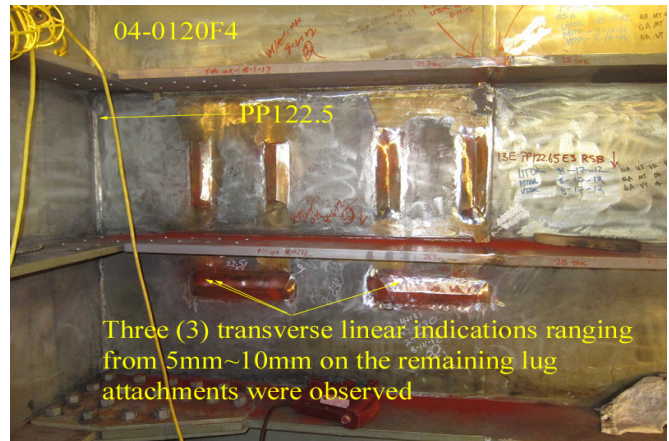
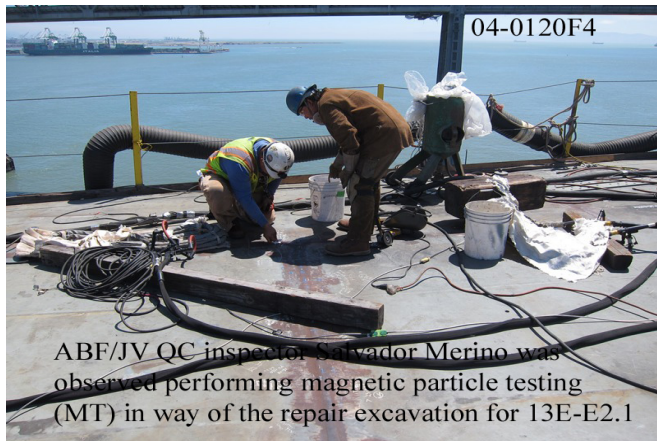
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

As noted above



Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Patterson,Rodney

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer